

FARM ADVISER

News Notes from the Field of the Extension Service, Released for Publication Every Two Weeks
From the Office of the Director of Extension.

Vol. 2.

College Park, Maryland, October 16, 1916.

No. 26

PUBLISHED EVERY TWO WEEKS BY

The Maryland
State College of Agriculture
COLLEGE PARK, MARYLAND

Entered as second-class matter February 5, 1915, at the post-office at College Park, Maryland, under the Act of August 24, 1912.

NOTICE

The purpose of the Farm Adviser is to furnish a convenient and timely medium for supplying news notes regarding the work of the Agricultural College, Experiment Station, and Extension Service, in co-operation with the U. S. Department of Agriculture to the local press and to county demonstration agents with a view to keeping them and the people throughout the State informed of the activities of these agricultural agencies in their behalf. All requests for copies of this sheet should be directed to Reuben Brigham, In Charge of Publications, The Extension Service, College Park, Maryland.

Will Test Soils Free Of Charge

College Park, Md., Oct. 16.

While at the Maryland Week Exhibition at Baltimore, November 14 to 18, Maryland farmers should visit the booth of the Department of Soils of the Maryland Agricultural Experiment Station from College Park. There they may have an acidity test made of their soils free of charge. Through the County Demonstration Agent, Dr. A. G. McCall, head of the soils department of the Experiment Station, extends a very cordial invitation to farmers to bring with them soil samples from fields which they suspect are acid. He will be prepared

to make a test of their samples and advise them as to the needs of their soil with regard to lime. In his letter to the County Agents Dr. McCall says:

"Will you not invite the farmers of your county to bring their soil samples with them and have a test made at our booth? A half pint sample each of soil and sub-soil will be sufficient. We hope to be able to make the tests so promptly that the owner of the sample may be able to take the result home with him the same day."

Soil acidity is one of the most important problems now confronting the farmers of Maryland. It has been estimated that over one-half of the soils of Maryland are acid. Leaching of lime from the soil and the absence of limestone over such a large part of the state are responsible for this prevalence of soil acidity.

Acidity in the soil is undesirable for several reasons, the most important of which is the injurious effect upon alfalfa, clovers and other legumes. The presence of acid in the soil also prevents the formation of available plant food materials from the minerals and organic matter stored in the soil and produces conditions favorable to the growth of certain troublesome weeds. The degree of acidity of our soil varies widely from those which produce crops of clover and alfalfa that barely pay the cost of seeding to those where these crops are total failures.

Acidity can be detected quite easily by the use of blue litmus paper, but this test gives no indication of the degree of acidity. Very frequently in using this test, pers-

piration on the hand causes a change in the color of the litmus paper and soils are wrongly labeled as acid. The Soils Department of the Experiment Station is now using a new test which not only detects positively the presence of soil acidity but gives definite information as to the degree of acidity. It is a very simple test and by means of a very little special apparatus can be made by anyone at home on the farm. The test depends upon the fact that when zinc sulfid, a white flour-like substance, comes into contact with an acid soil and is mixed intimately with it, a gas is formed which may be detected by boiling the mixture and holding a strip of especially prepared lead acetate paper in the steam at the mouth of the boiling flask.

The best and cheapest method of correcting acidity in soils is by the application of lime in some form. Here in Maryland we have the choice of burnt lime, air and water slaked lime, ground limestone and crushed oyster shells. Burnt lime should be used very carefully, as too liberal applications of it are sometimes injurious by causing extremely rapid decomposition of organic matter in the soil. Under most conditions the safest and cheapest form of lime to use is ground limestone or crushed oyster shell where the latter is available."

Selecting Potatoes For Exhibition

College Park, Md., Oct. 16.

The County Demonstration Agents are now engaged in measur-

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steam at the mouth of the boiler
 prepared and another pipe in the
 and holding a strip of paper.
 be detected by holding the mixture
 with it a gas is formed which may
 acid soil and is mixed intimately
 through water into contact with an
 vine which, a white florid-like sub-
 depends upon the fact that water
 at home on the farm. The test
 operation can be made by covering
 by means of a test-tube.
 ly. It is a very simple test and
 formation as to the degree of acid-
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 using a new test which not only
 the Examination Station is now
 with. The Soil Department of
 paper and soils are weekly labeled
 changes in the color of the litmus
 question on the hand answers a

The best and cheapest method of controlling acidity in soils is by the application of lime in varying amounts. There is abundant evidence that the choice of material and soil water relationships greatly influence soil chemical activity. That lime should be used very carefully, as too liberal application of it will sometimes injure crops by causing extremely rapid desiccation of extremely moist soil in the soil. Under most conditions the safest and simplest form of lime to use is ground limestone or crushed oyster shells where the latter is available.

Selected Bibliography for Exhibitors

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Bottom

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Wm. H. Miller, Jr.

ing the yields of Boys' Corn and Potato Club members. During the last week of October they will hold a series of county and local exhibits at which keen competition among the young farmers is expected. In a statement just issued regarding the selection of potatoes for exhibition, C. E. Temple, of the Maryland State College says:

"I am often called upon to judge potatoes at county fairs and at various other kinds of organizations. The more judging I do the more I am convinced that only very few people really know the essentials of selecting potatoes for competitive exhibition. At the same time, these essentials are few in number and they are easy to remember. At the present time almost any kind or quality of potatoes will sell at a fair price, yet the market requirements constitute the guide of the potato judge. The highest prices, like the highest awards, must ever go to the highest quality. What, then, constitutes quality in potatoes?

Potatoes of high quality are:

True to name

Free from disease

Uniform in size and smooth

Mature

Clean but NEVER washed

Sound, without bruises or cavities

True to the type of the variety

Medium sized tubers for the variety

Shallow eyes

White skin and white flesh, in those cases where different varieties compete for the same prize.

Experienced judges now-a-days score each lot of potatoes whenever the competition is keen for a given prize, just as has been done for

many years in making awards in poultry. The Boys' Potato Clubs in many of the states have increased the interest in growing potatoes, and, in these clubs the competition is often keen, as such prizes as \$25 are often offered for the best peck. The boys, as well as all others making such exhibits, should bear in mind, that the lot which comes most nearly up to the standard given here, is the lot which will win. This is true no matter who does the judging or how they are judged, so long as everything is on the square.

Not one speck of disease should be allowed on any of the selected tubers, for a few diseased tubers will often disqualify a whole peck. The most common diseases to look for are scab which is easily seen, Rhizoctonia which looks like a spot of black earth that cannot be washed off, and the stem-end rot which requires sharp eyes to detect the first symptoms of it, however, by a close examination of the stem-end. Where the tuber is broken from the stem, one may find the first signs of the stem-end rot. Many people fail to observe these external symptoms and are surprised that the judge cut the only tuber with a brown ring in it. The brown ring on the inside near the stem-end of the tuber is a good symptom of stem-end rot. No tubers showing insect bites or bruises should be exhibited. Likewise, all tubers with knots and prongs and those with hollow centers should be eliminated. It often happens that the judge will cut the only hollow tuber in a peck exhibit because he can usually detect a hollow tuber by pressing on it gently.

Uniformity of size is becoming as important in potatoes as in apples; hence, the potato judge lays considerable stress upon uniformity in of size. If you want to score high on this character, you can arrange your tubers between two straight edges when you are selecting them. You will be surprised to see how uniformity of size and shape will help the looks of your exhibit. And it goes without saying, that all of the tubers in each lot should be of only one variety, as mixed varieties like mis-named varieties are often disqualified. Then too, there would be little use of having standards unless each lot were selected as being typical of the characteristic of the type of the variety to which it belongs. For example: the Irish Cobbler should be almost round with somewhat deeper eyes at the bud end than elsewhere; whereas, the Green Mountain should be two to three times as long as it is thick and as large (or slightly larger) at the bud end as at the stem end, and the eyes at the bud end should be a little to one side. Every variety, therefore, has its characteristic form of type. If the exhibitor is not familiar with the type of his variety, he should endeavor to learn it before making up his exhibit. As a last resort, he can send specimens of different types to his County Agent, to his State Experiment Station, or to the U. S. Department of Agriculture at Washington, D. C., for the information desired. In case tubers are sent as suggested here, they should be numbered and similar ones numbered and kept at home, so that the reply may be made by number.

Disappointment generally comes to the one who fails to observe these simple little rules. Let the head rather than the hand make the selection for the exhibit.

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- Shapely
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- Shallow eyes
- White skin and white flesh in those roses where different varieties compete for the same prize.
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